AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-20. (canceled)

21. (currently amended) An RFID tag device comprising:

a divided microstrip antenna~~,~~ having three-terminal structure in which a receiving terminal and a replying terminal are divided, the microstrip antenna comprised of a GND board and a strip conductor to divide the strip conductor in the direction of the length;

a power receiving circuit based on a combination of a stub resonance-based~~,~~ impedance transformation RF boosting scheme which resonates a Nλg/4 short stab (N is odd) and a capacitance in series, and a ladder boosting/rectifying scheme which eliminates input grounded diode in order to operate boosting and rectifying in a condition of DC short by a stab of a Cockcroft-Walton circuit;~~,~~ and

a local oscillator circuit for generating a response subcarrier signal from the tag.

22. (currently amended) The RFID tag device according to claim 21, wherein a dividing position of the divided microstrip antenna is slightly deviated from a longitudinal center point across strip conductors by ~~at least~~ 5% to 30% ~~or more~~ with respect to the entire length.

23. (currently amended) The RFID tag device according to claim 21, ~~being an RF tag as a modulation scheme of which~~ wherein a passive QPSK modulation method is ~~usable~~ used for the modulation of the response subcarrier signal from the tag.

24. (previously presented) The RFID tag device according to claim 21, wherein impedance modulation elements of the divided microstrip antenna are respectively connected to opposite ends in a strip conductor width direction so as to connect divided conductors.

25. (previously presented) The RFID tag device according to claim 24, wherein the impedance modulation elements are PIN diodes or varactor diodes.

26. (previously presented) The RFID tag device according to claim 25, wherein the impedance modulation elements constitute a voltage or current controlled three-terminal element using a transistor, rather than a diode.

27. (currently amended) The RFID tag device according to claim 21, wherein a capacitance which is obtained from a capacitance of 1 pF to 0.1pF being divided by the using frequency per GHz unit ~~pF/GHz or less~~ is used for connecting the power receiving circuit and an antenna feeding point to perform high-impedance capacitive feeding.

28. (previously presented) The RFID tag device according to claim 21, wherein capacitive load impedances in a stub resonator and a ladder boost rectifier circuit of the power receiving circuit are parallel resonant, and further, the capacitive feeding impedance are series resonant.

29. (currently amended) The RFID tag device according to claim 21, wherein when considering longitudinal connections of capacitors in the ladder boost rectifier circuit of the power receiving circuit as GND- and receiving-side rails, capacitor capacitance of the receiving-side rail is smaller by one digit than that of the GND-side rail, a first diode between GND and a receiving point is eliminated, and a high-frequency and high-impedance input is receivable by a DC short.

30. (previously presented) The RFID tag device according to claim 23, wherein a logic circuit including a 1/4 frequency divider, a shift register and a data selector is used in the passive QPSK modulation method.

31. (previously presented) The RFID tag device according to claim 30, wherein MPSK modulation is applied by using a 1/M frequency divider, an M-stage shift register and an M-input data selector.

32. (previously presented) The RFID tag device according to claim 23, wherein response information including a tag ID code, etc. is recorded to a memory in units of two bits in accordance with the passive QPSK modulation method.

33. (previously presented) The RFID tag device according to claim 23, including an output timing generator circuit for obtaining an output enable signal in the passive QPSK modulation method.

34. (previously presented) The RFID tag device according to claim 33, wherein the output timing generator circuit generates a train of pulses with a random delay time having a fixed width and a fixed frame cycle, based on a source voltage size and a clock signal.

35. (previously presented) The RFID tag device according to claim 21, wherein by using a transducer such as a temperature sensor quartz resonator as the local oscillator circuit for generating the response subcarrier signal, a sensor function capable of allowing its oscillating frequency to be read by an external unit is additionally used.

36. (currently amended) A position detecting method ~~for a mobile object having no RFID tag~~, wherein in a system composed of an RFID device as claimed in claim 21, ~~and~~ one or more master devices (interrogators), determining ~~whether or not~~ a presence of an obstacle ~~is present~~ in a radio wave propagation path extending between each RFID tag device and each interrogator ~~is determined~~ based on the presence or absence of communication between the RFID tag and the interrogator.

37. (currently amended) The position detecting method ~~for a mobile object having no RFID tag~~ according to claim 36, wherein a plurality of radio wave propagation paths present between each RFID tag and each interrogator are distinguished based on a combination of a local oscillating frequency for generating a response subcarrier of each RFID tag, a response timing, a frequency of an interrogation radio wave outputted from the interrogator and timing of generating the interrogation radio

wave.

38. (currently amended) A position detecting method for a mobile object having an RFID tag, wherein interrogation radio waves at two or more frequencies are transmitted to an RFID tag device as claimed in claim 21 from an interrogator having two or more antennas dedicated for reception or used for transmission and reception, and based on a difference in phase between receiving antennas in a ~~signal for~~ response subcarrier signal thereto, maximum likelihood determination of a position of the RFID tag is performed.

39. (currently amended) The position detecting method for a mobile object having an RFID tag according to claim 38, wherein in order to enable a three-dimensional RFID tag position determination, an interrogation ~~device~~ having four or more antennas dedicated for reception or used for transmission and reception is used to eliminate a commonly measured distance offset by obtaining a group delay time in each radio wave propagation path based on four or more sets of response subcarrier signals measured for the two or more interrogation carrier radio waves~~frequency responses measured for the two or more frequencies~~, and obtaining a difference in delay time with reference to at least one of the sets.

40. (currently amended) The RFID tag device according to claim 21, wherein in order to expand communication range ~~including~~ two or more divided microstrip ~~tag~~ antennas of the tag are included, and the response subcarrier signals are synthesized~~in order to expand its possible communication range~~.

41. (currently amended) A communication method, wherein an RFID tag device as claimed in claim 40, wherein an RFID tag device as claimed in claim 40 utilizes synthesized directionality of antenna arranged in an array, and periodically changes wave direction ~~directionality~~ of an intense response subcarrier radio wave, which is synthesized by periodically changing a phase of a local oscillating signal provided to each ~~tag~~ antenna arranged in array for generating a response subcarrier signal, thereby returning an intense response radio wave toward an interrogator in a wide area.